



David R. Metzger  
347/876-2578  
dmetzger@sonnenschein.com

April 3, 2003

Examiner Tan N. Tran  
Group Art Unit 2826  
U.S. Patent & Trademark Office  
Hon. Commissioner of Patents  
Washington, D.C. 20231

Re: U.S. Serial No. 09/970,593 filed October 4, 2001 entitled  
"SEMICONDUCTOR DEVICE USING INTERPOSER SUBSTRATE AND  
MANUFACTURING METHOD THEREFOR"  
Attorney Docket No. 09792909-5237

Dear Dear Examiner Tran:

Enclosed is a copy of the Amendment "A" which we mailed to the U.S.P.T.O. on July 26, 2002, together with a copy of the return postcard acknowledging receipt by the USPTO.

Very truly yours,

SONNENSCHEIN NATH & ROSENTHAL

By:

David R. Metzger

DRM:kat  
Enclosures

1221 Avenue of the Americas

New York, NY 10020

212 768 6700

212 768 6800 fax

[www.sonnenstein.com](http://www.sonnenstein.com)

SONNENSCHEIN

NATH & ROSENTHAL

Attorneys at Law

1221 Avenue of the Americas

New York, NY 10020

212 768 6700

212 768 6800 fax

[www.sonnenstein.com](http://www.sonnenstein.com)

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212 768 6700

212 768 6800 fax

[www.sonnenstein.com](http://www.sonnenstein.com)

SONNENSCHEIN

NATH & ROSENTHAL

Attorneys at Law



Client Name & No.

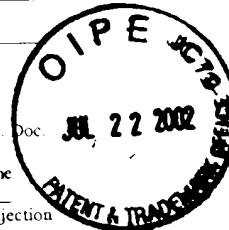
Applicant

Ser # Pat #

PATENT

*May Corporation* #09742909-5237  
*Josephine*  
091970593

7/18/02



Please acknowledge receipt of:

- Application having \_\_\_\_\_ pages of specification and claims, and \_\_\_\_\_ sheets of drawings. FIG(S) \_\_\_\_\_
  - Declaration / Oath
  - Power of Attorney
  - Small Entity Statement
  - Check # \_\_\_\_\_
- Patent Assignment Cover Sheet
  - Assignment
  - Check # \_\_\_\_\_
- Letter
- Information Disclosure Statement
  - Form PTO-1449 & Refer.
  - Certification
  - Petition
  - Check # \_\_\_\_\_

Mailed 7/16/02

Preliminary Amendment

Request for Priority and Pri. Doc.

Reply to Office Action

Request for Ext. of Time

Check # \_\_\_\_\_

Amendment After Final Rejection

Request for Ext. of Time

Check # \_\_\_\_\_

Corrected Drawings

Issue Fee Transmittal

Check # \_\_\_\_\_

Other \_\_\_\_\_

Maintenance Fee Transmittal Form

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09 970,593      | 10 04 2001  | Akira Yoshizawa      | 09792909-5237       | 1195             |

26263 7590 06 18 2002  
SONNENSCHEIN NATH & ROSENTHAL  
P.O. BOX 061080  
WACKER DRIVE STATION  
CHICAGO, IL 60606-1080

EXAMINER

TRAN, TAN N

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 06 18 2002

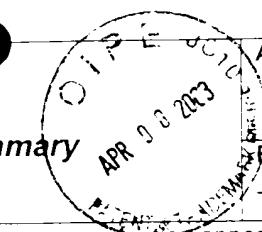
Please find below and/or attached an Office communication concerning this application or proceeding.

RESTRICTION  
REQUIREMENT

RECEIVED 6/24/02 DOCKET  
DOCKETED Response  
SEARCHED 6/24/02  
BY: BVM Response due 7/18/02

JUN 24 2002

**BVM**



## Office Action Summary

Application No.

09/970.593

**Examiner**

TAN N TRAN

**Applicant(s)**

YOSHIZAWA ET AL.

## Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(e).

## Status

1)  Responsive to communication(s) filed on 04 October 2001.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) \_\_\_\_\_ is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) 1-11 are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

• Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a))  
\* See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)  
a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_

4)  Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121.
  - I. Claims 1-8, drawn to a semiconductor device, classified in class 257, subclass 692.
  - II. Claims 9-11, drawn to a method of manufacturing a semiconductor device, classified in class 438, subclass 117.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP 806.05(f)). In the instant case, unpatentability of the Group I invention would not necessarily imply unpatentability of the Group II invention, because the device of Group I invention could be made by a process materially different from that of the Group II invention. For example, the process of claim 9 can be materially altered by mounting a semiconductor chip having electrodes on the semiconductor chip, via an anisotropic conductive layer, on the surface of substrate, then forming built-up layers on the other surface of core substrate opposite to the one surface of substrate which the semiconductor chip is mounted, then electrically connecting the electrodes on the semiconductor chip and those on the surface of the core substrate via the anisotropic conductive layer.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, the fields of search are not co-

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extensive and separate examination would be required, restriction for examination purposes as indicated is proper.

4. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 FR 1.143).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Tran whose telephone number is (703) 305-3362. The examiner can normally be reached on Monday-Friday 8:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



NATHAN J. FLYNN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

June 2002

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**Dear United States Patent and Trademark Office Customer:**

Quality and customer satisfaction are important to Technology Center 2800

Technology Center 2800 has taken continuous quality improvement efforts to ensure that the accompanying correspondence meets high quality standards, and focuses on good customer service. It is important to us that you are satisfied with the services we provide.

If the communication you have received has any issues that raise concerns as to the quality and/or clarity of the action taken by the examiner, we invite you to contact the appropriate Supervisory Primary Examiner. You may also contact one of our Quality Assurance Specialists.

**Quality Assurance Specialists:**

**Don Hajec.....703-308-4075      Paul Dzierzynski.....703-308-4822**

If the contents of the attached correspondence have any clerical omissions, e.g., missing references or pages, illegible text, or any other similar errors, please contact us at the number below. We will take appropriate action to expedite the necessary corrections. Also, if you have general questions concerning any application assigned to Technology Center 2800, please contact our Customer Service Center. Questions concerning the merits of the application must be directed to the Examiner in charge of the particular application, then to the supervisor if appropriate.

**TC 2800 Customer Service Center      Crystal Plaza 4-6<sup>th</sup> floor, D-corridor**

**Customer Service Representatives:**

**Linda M. Hodge-Taylor      CP4-6-D32  
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USPTO-wide customer service standards state that if a USPTO employee being called is not available, they will return your call by the next business day, or, if you request, an alternate point of contact will be provided. Technology Center 2800 is committed to meeting this service standard. If you have called any employee in our Technology Center and have not received a return phone call within one (1) business day or have not been provided another point of contact, please contact our Customer Service Center at 703-306-3329. We ensure that you will receive a return phone call, from an employee with the ability to assist you, within four (4) business hours of this contact.

Any matter not satisfactorily resolved by the listed resources should be brought to the attention of the appropriate Director listed below. We appreciate your assistance in helping us help you.

**Directors, Technology Center 2800  
Semi-conductors, Electrical, Optical Systems & Components**

|                    |              |         |
|--------------------|--------------|---------|
| Sharon Gibson      | 703-308-0658 | 2810    |
| Rolf G. Hille      | 703-306-0658 | 2820    |
| Richard Seide      | 703-306-3431 | 2830-40 |
| Howard N. Goldberg | 703-306-3431 | 2850-60 |
| Lance A. Faldone   | 703-308-0531 | 2870-80 |